

Ernst & Young LLP helps state governments obtain and deploy federal grant money for broadband development.

The federal government has declared high-speed internet access a vital utility to help residents remain connected and informed, promote economic development, and provide access to education and telemedicine.

States and local governments are taking action to close the digital divide by using federal grant funding to improve broadband coverage, quality, affordability, digital literacy and competition.

Ernst & Young LLP (EY US) has exceptional experience in optimizing broadband and infrastructure investments, with decades of experience advising private sector service providers and vendors, as well as public sector program administrators and strategists. EY US grant management professionals help clients make impactful broadband fund deployments and accelerate the procurement process ahead of demand surges.

Unprecedented funding targeted at the digital divide

High-speed internet access is no longer a luxury for affluent, urban consumers, but increasingly a critical utility for urban, suburban, and rural consumers and businesses. The federal government has declared connectivity a necessity for full participation in society, including aspects of education, work, health and other areas of modern American life.

State and local governments across the country have begun considering their role in supporting high-speed broadband and fiber deployment to close the digital divide and positively impact their communities.

More important, Congress has reinforced the state and local sentiment with a forthcoming infrastructure package of \$1.2 trillion, of which \$65 billion is allocated to funding broadband improvements in unserved and underserved areas to improve coverage, quality, affordability, digital literacy and competitiveness. The Infrastructure Investment and Jobs Act (IIJA) comes on the heels of substantive programs such as the American Rescue Plan Act (ARPA), which made \$17 billion available for broadband; the Consolidated Appropriations Act (CAA) of \$1.3 billion; the Rural Digital Opportunity Fund, providing \$20.4 billion for unserved areas; and the U.S. Department of Agriculture's Rural Utility Service Reconnect Pilot program that is part of the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Over the next

decade, federal funding for these broadband and connectivity initiatives is expected to continue reaching unprecedented levels. Federal funds allocated to broadband are expected to increase four times 2019 levels by 2024.

As the current legislative infrastructure package journeys through Congress, state and local government agencies are poised to secure access to billions of dollars in grant funding and will have a historic opportunity to make their communities more equitable and modern.

Many states, counties and cities chose to use part of their ARPA allocation, available today, to conduct the necessary planning for access to the forthcoming and much larger IIJA pools of funds. States will need to submit detailed plans to obtain the IIJA funds that are available to them on a formula basis and will also have the ability to compete for other pools of money. Cities and counties see a clear benefit in providing "their" plan to the state, so that it is included in the state's request, in addition to competing for funding of their own. Those proactive entities also anticipate a supply chain shortage – of staff, of advisors, of construction capacity, even of fiber optics – that will unfold when states start to deploy the \$65 billion of IIJA. They are seeking to get to the head of the line for funding and for delivery.

Wide array of funding opportunities and objectives

While broadband public funding continues to be emphasized, an increased amount of complexity is introduced through the difference in each program's objectives, structure, deployment parameters and administration. Additionally, several state legislatures have narrowed the scope of fund usage by specifying which parties can distribute funds (e.g., counties or cities) or receive funds (e.g., carriers or not-for-profits), and how.

- ► The ARPA Emergency Connectivity Fund E-rate Program is targeted to enable connectivity at schools and libraries and is administered by the Federal Communications Corporation (FCC).
- The CAA reserves money for minority-serving institutions and tribal areas; it is administered by the National Telecommunications and Information Administration and the Department of Commerce.
- The IIJA is in part formulaic to states, but it requires submission of a letter of intent, a draft proposal, an action plan and a final proposal. States must describe how funds will address unserved areas before underserved areas are considered.
- About one third of IIJA funding is competitive and will go to the projects with most "merit," regardless of state.

As a trusted, national wireless and broadband consultant, EY US is committed to helping its government and public sector clients develop strategies that make effective use of taxpayer funds and navigate the emerging complexity associated with funding requirements.

The benefits of digital divide programs

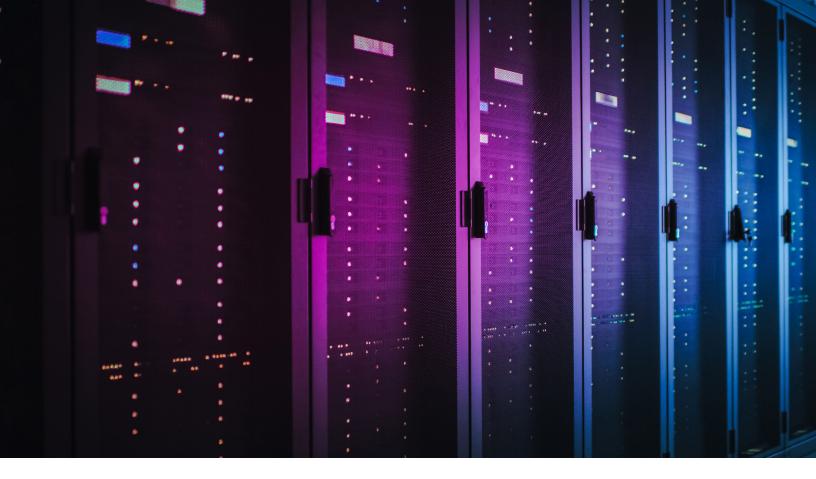
There is a growing digital divide between those who have broadband access, connected devices and digital literacy foundations, and those who do not. The divide indicates that a broad swath of American households will not be able to participate equitably in the future of our society. The drivers of the divide are often associated with locations (e.g., rural) where broadband operators struggle to create a financial business case for broadband deployment. While this has historically been treated as a rural-America issue, it is increasingly apparent that there are challenges at the local level regardless of whether the environment is rural, suburban or urban.

Prior to the COVID-19 pandemic, the digital divide issue was understood, but the implications of the pandemic on the daily lives of Americans have been exacerbated, and it does not appear to be temporary. The rapid implementation of stay-at-home orders in 2020 showcased the inequity of access to basic broadband resources. It is currently clear that state and local governments cannot claim to have a high-performing economy or healthy community if portions of their populations and businesses are being left behind – especially as this divide continues to accelerate.

Conversely, the economic benefits of closing the digital divide through thoughtful programs can be a significant boon to the community. For example, one city became a top destination for technology companies and entrepreneurs to invest in businesses, create new jobs, and further economic and social development after it made a high-speed, city-owned, community-wide, fiberoptic network (up to one gigabyte per second) available to residents and businesses.

Other governments are beginning to adopt similar infrastructure upgrades. For example, one state has dedicated \$2.17 billion from various government funding streams to expand broadband projects. Another is developing an open-access network that will let internet service providers connect to a state-built fiber-optic grid. Albeit initially fraught with trouble, that program is now on track to deliver, and other states have since embarked on comparable programs. One East Coast state is investing \$1.2 billion in ARPA funds over the next four years toward physical infrastructure, price affordability and digital literacy, with the goal of bringing high-speed internet access to all homes with children. Another state government established a broadband council to deliver "Broadband for All," including difficult-to-reach rural regions – and led a large-scale campaign to promote the low-cost options. The number of efforts is proliferating, and the demand-based, privately and publicly funded virtuous cycle is beginning.

States and municipalities are showcasing different paths to close the digital divide. Federal funding is aligned with these areas of success. Funding can incentivize broadband providers by creating a public-private partnership (P3) that creates viable private sector business cases through funding that achieves public sector goals. In areas where the business case is challenging, even with public funding, the state or municipality can build its own network. Going forward, federal funding will also address affordability by incentivizing low-cost operators to overbuild established broadband providers by providing grants for construction or offering subsidies through digital divide programs such as the Enhanced Broadband Benefit from the FCC.



Benefits of addressing the digital divide

A body of academic literature is emerging on the benefits of addressing the digital divide:

- In 2020, the Federal Reserve found that broadband access and adoption in rural areas are linked to increased job and population growth, higher rates of new business formation, increases in home values and lower unemployment rates.
- In 2016, the White House Council of Economic Advisers concluded that broadband provides benefits in improving labor market outcomes, increasing economic growth, strengthening access to health care and enhancing civic participation.
- Many analyses, including our own, support a strong correlation between broadband and economics.

Overall, broadband has become a utility and is increasingly inequitable. Thankfully, the digital divide is receiving the national and local attention it deserves so that social and economic challenges can be overcome. As a result, the private and public sectors will require a thoughtful market understanding, identification of issue areas, clear solutions and novel approaches, such as P3s, to effectively address the digital divide.

Enabling infrastructure programs, usually through P3, has advantages of making service cost effective in hard-to-reach areas and, if conditions are right (such as availability of state-owned rights-of-way), can be realized at low cost through P3 structures. Grant programs have the advantage of speed to market but present more complexity in terms of tracking success and benefits. Many states choose hybrid programs, targeting the best of both worlds.

Offering turnkey broadband program implementation

At EY US, we combine our experience in financial and advisory services with our commercial, operational and technical knowledge to help our public and private sector clients across a wide range of industries, including infrastructure and broadband services.

Our broadband capability includes market assessment, geospatial mapping, strategic analysis and planning, financing, program structuring, procurement, technical deployment, IT deployment, program management, post-construction support, compliance, impact tracking and reporting.

In our experience with clients, those that are successful typically complete a needs assessment to create a baseline for which broadband deficiencies can be identified. This is analyzed on a local, geospatial basis and serves as the foundation for developing thoughtful and practical solutions on which the public and private sector can act. In addition, a solid understanding of the commercial opportunity associated with each of the identified areas, the cost to enable that opportunity and the potential subsidies required to address any private sector shortfalls is critical to engaging realistic solutioning between the private and public sectors and generating the most value for each funding dollar. Finally, the planning phase often creates a market-tested approach to address those deficiencies and create value with processes that can lead to stronger grant program evaluation and allocation, better tracking and reporting, and tangible outcomes.

Helping state and local agencies execute grant programs

Never has so much discretionary funding been available to state and local governments in such a short period of time. While state governments have grant allocation systems designed for steadier and smaller flows of funds, most do not have teams and structures that can scale appropriately to manage the influx of one-time funding while still meeting additional federal compliance and reporting requirements.

Although each state's program will differ based on its needs, all federal funding is accompanied by strict rules, processes, procedures and oversight. Many organizations have limited experience in working with these regulations. States also want to maintain the public's trust through proven, transparent procedures.

EY Grants Accelerator (EYGA) is a cloud-based platform that facilitates the application, documentation, review, approval and monitoring/reporting processes, connecting applicants with teams that can validate and compare the applications and answer providers' questions. Administrators and application reviewers can initiate new programs; define specific scoped projects; communicate with applicants to resolve questions or discrepancies;

and seamlessly report on progress, performance and outcomes. Using automation, artificial intelligence and sophisticated mapping overlays, EYGA helps shorten application approval cycle times, provide better data for decision-making and simplify auditing processes after the fact. This reduces overall administrative burden so that governments can focus more resources on impactful activities that improve constituent outcomes.

EY US professionals have experience working with state and local agencies to distribute Federal Emergency Management Agency (FEMA) and United States Department of Housing and Urban Development relief grants following natural disasters. Our teams have assisted clients with obtaining and managing more than \$18 billion in financial recovery through federal grants, insurance and other funding sources. Our team – including former FEMA senior officials, certified public accountants, forensic accountants, certified fraud examiners and grants managers – has applied its experience, powered by EYGA, to deploy money to small businesses, child-care providers and renters seeking assistance through programs funded by the CARES Act, CAA and ARPA.

EYIA and Sourcewell

Ernst & Young Infrastructure Advisors, LLC is the selected contractor from a national competitive bid managed by Sourcewell, a national consortium that represents 50,000 municipal, state and education agencies. As a preapproved contractor, EYIA is available to assist stakeholders immediately with wireless and broadband infrastructure consulting services, accelerating the sourcing process.

Summary

State and local government agencies have unprecedented access to federal funding to expand broadband capability and initiatives. As local agencies determine how best to use the available funding, they must consider all aspects of closing the digital divide by improving fiber-optic coverage to all areas of the country, making it affordable for consumers and for providers, and improving digital literacy so that everyone who has access to broadband can generate value from it, for business and education. The states that are able to specify plans quickly will have a clear advantage, not just in terms of supply chain, but also in the growth it enables for their economies and residents.



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